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A review of some medicinal plants

Part 2—*Medicinal Plants of Our Local Flora**

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The following is a list of 100 of the more common plants possessing remedial virtues, found within the range of the Torrey Club's field excursions.

1. *Aspidium marginale* (L). Sw. (Marginal Shield Fern). The rhizome and stipes are used as a remedy for tapeworm. It is closely related to No. 22, List I.
2. *Lycopodium clavatum* L. and other species (Club-Moss). The spores are used to coat pills to prevent them from adhering to one another. Also they are employed in the manufacture of some dusting powders.
3. *Acorus Calamus* L. (Sweet Flag). The rhizome is tonic and may be eaten as such, or made into an infusion.
4. *Veratrum viride* Ait. (American White Hellebore). The rhizome and roots prepared as a fluidextract or tincture are used as a sedative. It has the effect of reducing the blood pressure.
5. *Polygonatum biflorum* (Walt.) Ell. (Small Solomon's Seal). The rhizome was formerly used in fluidextract as a tonic, for gout and rheumatism.
6. *Trillium erectum* L. (Birthroot), and other species. The rhizome has been used as an oxytocic, hence its common name.
7. *Iris versicolor* L. (Larger Blue Flag). An extract or fluidextract of the rhizome is diuretic and cathartic, large doses emetic.

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8. *Cypripedium parviflorum* Salisb. (Smaller Yellow Lady's Slipper), also the Var. *pubescens* (Willd.) Knight (Larger Yellow Lady's Slipper). A tincture prepared from the rhizome and roots stimulates the nervous system, acting as an antispasmodic.
9. *Salix sp.* (Willow). The bark contains a glucoside called salicin, and tannin, as its chief constitutents. In infusion or decoction it was formerly employed as an antiperiodic. Salicylic acid was originally derived from Salicin, but it is now made synthetically from phenol. Salicylic acid is used as a stomatic and its sodium salt is administered hypodermically in the treatment of rheumatism. It is a constituent in the manufacture of Aspirin.
10. *Populus candicans* Ait. (Balm of Gilead). The buds are covered with a resinous substance from which a fluidextract is prepared and used as an expectorant. As an ointment it is applied to indolent ulcers.
11. *Juglans cinerea* L. (Butternut). The bark of the root prepared as a fluidextract is reputed to be effective in the treatment of dysentery and constipation.
12. *Betula lenta* L. (Sweet Birch). Contains a glucoside, Gaultherin, which is decomposed by water to oil of wintergreen. This is the commercial source of the oil. Oil of wintergreen is used in liniments for muscular rheumatism, etc.
13. *Quercus alba* L. (White Oak). Infusion or decoction of the bark is used as an astringent. It owes its properties to a high percentage of tannic acid.
14. *Ulmus fulva* Michx. (Slippery Elm). The inner bark contains a mucilaginous substance, whence it is used as a demulcent to alleviate irritation of the throat, etc.
15. *Rumex crispus* L. (Yellow Dock). The root is used in the treatment of skin diseases; as a decoction, administered internally and as an ointment or decoction, applied externally.
16. *Chenopodium ambrosioides* L. (Mexican Tea, also called American Wormseed). The oil, or a decoction made from the ripe fruits, is used to expel worms, particularly in children.
17. *Phytolacca decandra* L. (Common Pokeweed). The root was

formerly used in treatment of chronic rheumatism. It is sometimes used for skin diseases applied externally as an ointment; administered internally as a tincture or decoction.

18. *Stellaria media* (L.) Cyrill. (Common Chickweed). The herb is sometimes used as a poultice for bruises, etc.
19. *Portulaca oleracea* L. (Common Purslane). The herb has diuretic properties.
20. *Castalia odorata* (Ait.) Woodville & Wood (Sweet-scented Water Lily). The rhizomes are highly astringent and are recommended for cases of diarrhea and dysentery.
21. *Ranunculus bulbosus* L. (Bulbous Buttercup). The plant is used as an irritant, causing the skin to blister.
22. *Hepatica triloba* Chaix. (Liverleaf). The leaves boiled into a decoction are used as a tonic.
23. *Coptis trifolia* (L.) Salisb. (Goldthread). The rhizome and roots are mainly used. It is chewed or used as a mouthwash for cankersores, as a gargle for sore throat, and sometimes as a tonic. Prepared as a decoction.
24. *Cimicifuga racemosa* (L.) Nutt. (Black Snakeroot). The rhizome prepared as an extract or fluidextract affects the circulation, slowing the pulse rate and lowering the blood-pressure. It is used sometimes as digitalis. It is useful in treatment of St. Vitus's dance.
25. *Actaea alba* (L.) Mill. (White Baneberry). The rhizome has violent purgative and irritant properties.
26. *Hydrastis canadensis* L. (Golden Seal). The rhizome contains two alkaloids, hydrastine and berberine. It is prepared as a fluidextract, extract, tincture, or the purified alkaloids may be used. It is efficacious in remedying chronic inflammation of mucous membranes in the stomach, intestines, vagina, etc. It also has been used to stop uterine hemorrhages.
27. *Magnolia virginiana* L. (Sweet Bay). The bark is prepared as a decoction or made into a tincture with brandy. It has tonic and diaphoretic properties and also is a remedy for malaria.

27a. *Liriodendron Tulipifera* L. (Tulip Tree) has similar properties.

28. *Podophyllum peltatum* L. (May Apple). See List I.

29. *Caulophyllum thalictroides* (L.) Michx. (Pappoose Root). The fluidextract of the rhizome and roots has been used in treatment of hysteria, and also in uterine diseases.
30. *Berberis vulgaris* L. (Common Barberry). The root, containing berberine among other alkaloids, is used as a tonic.
31. *Sassafras variifolium* (Salisb.) Ktze. (Sassafras). The oil distilled from the root is used as a flavoring, chiefly to disguise the presence of disagreeable drugs. The pith contains a gum which forms a mucilage with water and is used to soothe inflamed eyes or as a medium for the application of other drugs.
32. *Sanguinaria canadensis* L. (Blood Root). A tincture of the rhizome is used as an expectorant in bronchitis. In larger doses it is emetic. Applied locally it is used to stimulate indolent ulcers and as a remedy for fungus diseases.
33. *Chelidonium majus* L. (Great Celandine). An infusion of the plant has sedative properties. The fresh juice (latex) has been used in treatment of skin diseases.
34. *Capsella Bursa-pastoris* (L.) Medic. (Shepherd's Purse). The plant is diuretic and tonic.
35. *Heuchera americana* L. (Common Alum Root). The root contains a high tannin content and is therefore an excellent astringent.
36. *Hydrangea arborescens* L. (Wild Hydrangea). A fluidextract prepared from the roots is diuretic. It is claimed to expel small stones from the kidneys.
37. *Hamamelis virginiana* L. (Witch Hazel). A distilled extract or a fluidextract of the leaves is used as an astringent lotion.
38. *Potentilla canadensis* L. (Cinquefoil). An infusion of the herb is used as an astringent.
39. *Rubus sp.* (Bramble). A fluidextract or decoction or syrup prepared from the bark of the rhizome is used as a tonic and astringent. It is used also as a household remedy for diarrhea.
40. *Prunus serotina* Ehrh. (Wild Black Cherry). See List I.
41. *Cassia marilandica* L. (Wild Senna). Has laxative properties. See No. 8, List I.

42. *Baptisia tinctoria* (L.) R. Br. (Wild Indigo). The root prepared as a decoction or tincture acts as a violent emetic and cathartic. It also is used externally in lotions and ointments for chronic ulcers.
43. *Cytisus Scoparius* (L.) Link (Scotch Broom). A decoction of the tops of the plants has diuretic properties. Sparteine, one of the active principles, affects the heart and circulation and is sometimes used as a heart regulator.
44. *Melilotus officinalis* (L.) Lam. (Yellow Melilot) and *M. alba* Desr. (White Melilot). The dried leaves and flowering tops are prepared as a poultice to relieve pain.
45. *Geranium maculatum* L. (Wild Cranesbill). The rhizome is administered as the powdered drug, or prepared by decoction. It is astringent and is useful in relieving internal hemorrhages.
46. *Ailanthus glandulosa* Desf. (Tree of Heaven). The powdered bark is used as a nerve depressant. It owes its properties to a volatile oil.
47. *Polygala Senega* L. (Seneca Snakeroot). See Senega, List I.
48. *Mercurialis annua* L. (Mercury). Used as an alterative in syphilis. It is also used as a purge.
49. *Euphorbia Ipecacuanhae* L. (Wild Ipecac). The root had emetic properties.
50. *Rhus glabra* L. (Smooth Sumach). An infusion of the fruits is astringent and refrigerant and used as a gargle in acute inflammation of the throat.
51. *Acer rubrum* L. (Swamp Maple). The bark is a mild astringent and was used by the Indians as a wash for sore eyes.
52. *Impatiens pallida* Nutt. (Pale Touch-Me-Not), also *I. biflora* Walt. (Spotted Touch-Me-Not). An infusion of the plant is used as a diuretic. The fresh juice is reputed to soothe the effects of ivy poisoning.
53. *Ceanothus americanus* L. (New Jersey Tea). The root has astringent properties due to a high tannin content. The leaves were substituted for tea during the Revolution.
54. *Psedera quinquefolia* (L.) Greene (Virginia Creeper). A fluidextract of the leaves has diuretic and refrigerant properties which are due to the presence of tartaric acid and tartrates.
55. *Tilia americana* L. (Basswood, Linden). and other species

of *Tilia*. The flowers are used in infusion for ailments due to a nervous condition, such as nervous headache and indigestion.

56. *Althaea officinalis* L. (Marsh Mallow). The mucilaginous properties of the infusion of the root are utilized as a demulcent in cases of inflammation of the gastro-intestinal tract.
57. *Hypericum perforatum* L. (Common St. John's Wort). The fresh plant when bruised has been used externally to relieve pain, bruises, etc., and taken internally for chronic catarrhal disorders.
58. *Helianthemum canadense* (L.?) Michx. (Frostweed). The whole dried plant is used as a bitter or tonic, and sometimes as a mild astringent.
59. *Epilobium angustifolium* L. (Fireweed). A household remedy used as an intestinal astringent.
60. *Oenothera biennis* L. (Common Evening Primrose). The leaves and flowering tops of this species, prepared as a fluidextract, control nervous spasms, hiccough, asthma and whooping cough.
61. *Aralia racemosa* L. (Spikenard). The rhizome and roots are prepared by infusion, decoction, or fluidextract for use as a stimulant and diaphoretic.
62. *Aralia nudicaulis* L. (Wild Sarsaparilla). Properties similar lar to *Aralia racemosa*.
63. *Conium maculatum* L. (Poison Hemlock). The action of this plant, which depresses the motor nervous system, is so unreliable and likely to be fatal that it is rarely administered internally. It is used externally as a plaster for neuralgia and as a poultice to relieve pain caused by cancer or ulcers.
64. *Cicuta maculata* L. (Spotted Cowbane). It has properties similar to *Conium* and is sometimes used in lieu of it. It is sedative and poisonous and demands the same precautions as *Conium*.
65. *Cornus florida* L. (Flowering Dogwood). The bark of the root prepared as a fluidextract is a mild astringent and aromatic bitter.
66. *Chimaphila umbellata* (L.) Nutt. (Pipsissewa), and *C.*

maculata (Spotted Wintergreen). The leaves are prepared as a fluidextract and exert a diuretic effect.

67. *Ledum groenlandicum* Oeder. (Labrador Tea). An infusion is used as tea and is somewhat narcotic. It is sometimes used in chronic bronchitis.
68. *Epigaea repens* L. (Mayflower). The leaves in decoction are used as a diuretic in cases of local irritation of the urinary tract.
69. *Arctostaphylos Uva-ursi* (L.) Spreng. (Bearberry). A diuretic. See List I.
70. *Limonium carolinianum* (Walt.) Britton (Sea Lavender). The root contains a high percentage of tannin and is used as a gargle in treatment of ulcers of the mouth.
71. *Fraxinus americana* L. (White Ash). The inner bark is prepared as a wine of white ash and the leaves are sometimes used in infusion. The bark is a tonic and astringent; the leaves are diuretic and purgative.
72. *Sabatia angularis* (L.) Pursh, and other species. These plants are used as bitters and tonics much as gentian is used to aid the appetite. See Gentiana in List I.
73. *Apocynum cannabinum* L. (Indian Hemp). The rhizome and roots are prepared for administration in various ways: infusion, tincture, fluidextract. It is a good diuretic. It affects the circulatory system in a manner similar to that of Digitalis (List I.)
74. *Asclepias tuberosa* L. (Pleurisy-root). The root is prepared as a fluidextract which is diuretic and carminative, and in large doses, cathartic and emetic. It is used in pleurisy and pneumonia to stimulate perspiration.
75. *Verbena hastata* L. (Blue Vervain). An infusion or fluidextract of the herb is used as an expectorant and also to stimulate perspiration. Large doses are emetic.
76. *Marrubium vulgare* L. (Common Horehound). The leaves and flowering tops are prepared as candy or syrup and used in bronchial affections.
77. *Nepeta Cataria* L. (Catnip). An infusion of the leaves and flowering tops has been used as an emmenogogic and sedative; also used to allay colic pains in infants.
78. *Hedeoma pulegioides* (L.) Pers. (American Pennyroyal). A

stimulating aromatic used in treatment of dyspepsia and colic.

79. *Collinsonia canadensis* L. (Rich-weed). A hot infusion of the root is used in the treatment of fever. It is tonic, diuretic and diaphoretic.
80. *Solanum Dulcamara* L. (Bittersweet). The stem and branches are used for making the powdered substance, extract, decoction, etc. It produces diuresis and stimulates the sweat glands. In large doses it is sedative and hypnotic. However, it is used chiefly in the treatment of skin diseases.
81. *Solanum carolinense* L. (Horse Nettle). The dried fruits have properties similar to *S. Dulcamara.*
82. *Datura Stramonium* L. (Stramonium). See List I.
83. *Verbascum Thapsus* L. (Common Mullein). The flowers have been used to relieve tubercular coughs, but it is of little value apparently. The leaves are mucilaginous and are used as a demulcent.
84. *Chelone glabra* L. (Balmony). The herb is used as a bitter tonic.
85. *Veronica virginica* L. (Culver's Physic). The powdered rhizome and roots act as a cathartic and emetic. Administered in substance or as a fluidextract.
86. *Plantago major* L. (Common Plantain). The leaves applied whole or as a poultice are sometimes used to stay a hemorrhage and also are applied to stimulate healing of epidermal sores.
87. *Mitchella repens* L. (Partridge Berry). An infusion of the stem and leaves has diuretic and tonic qualities.
88. *Cephalanthus occidentalis* L. (Buttonbush). The bark of the root is used for treatment of colds.
89. *Viburnum Opulus* L. (High-Bush Cranberry), and *V. prunifolium* L. (Black Haw). See List I.
90. *Lobelia inflata* L. (Indian Tobacco). See List I.
91. *Eupatorium purpureum* L. (Joe-Pye Weed). The roots and leaves have diuretic properties.
92. *Eupatorium perfoliatum* L. (Boneset). An infusion of the leaves and flowering tops is tonic, in large doses laxative. It is used mostly to abort incipient colds.
93. *Erigeron annuus* (L.) Pers. (Daisy Fleabane). An infusion

of the herb is diuretic. It also is used to stimulate the appetite and aid digestion.

94. *Ambrosia artemisiifolia* L. (Roman Wormwood, Ragweed). This plant is best known as a cause of Fall hayfever. It is gratifying to know that it has some useful qualities. The fluidextract of the flowering herb is astringent and used locally to stop bleeding. It is a bitter tonic sometimes used for dyspepsia.
95. *Achillea Millefolium* L. (Common Yarrow). The flowering herb is used usually in hot infusion, as a stimulant and tonic.
96. *Tanacetum vulgare* L. (Common Tansy). The leaves and tops are prepared especially as a hot infusion for a tonic, the removal of worms from the intestines and as a febrifuge in mild fever.
97. *Tussilago Farfara* L. (Coltsfoot). The decoction or infusion of the leaves is demulcent and tonic and is used in bronchial affections. The root is smoked to relieve coughs.
98. *Senecio aureus* L. (Golden Ragwort). A decoction or infusion of the rhizome and roots or of the aerial parts has been used as an emmenogogue.
99. *Arctium Lappa* L. (Great Burdock). A decoction of the root is diuretic. It also alters the course of diseases such as gout, rheumatism, syphilis and scrofula.
100. *Taraxacum officinale* Weber (Common Dandelion). A fluidextract of the root is tonic, laxative and slightly diuretic. It is used in treatment of dyspepsia and constipation.

Preparation for Use

Medicinal plant materials usually require special preparation to facilitate administering and to concentrate or isolate the active principles but the fresh or dried drug is sometimes used as such, without any special preparation. The majority of materials are brought into solution before using. The chief methods by which this is accomplished may be summarized briefly as follows:

1. Decoction—a method of extracting the active principle by means of actively boiling water.
2. Infusion—a method of separating the desired constituents

by allowing the raw drug to macerate in water. Usually a hot infusion is made by pouring boiling water over the material and allowing it to cool gradually.

3. Percolation—a method of extraction in which the solvent (menstruum) gravitates through the powdered material. The solution passing through is called the percolate.

   When the solvent is alcohol rather than water, the resulting solution is called a *tincture*. Tinctures may be made by maceration, and by percolation. The percolate, concentrated so that one cubic centimeter is equivalent to one gram of the dried drug, is known as a *fluidextract*. When a percolate is evaporated to a solid or semi-solid, the resulting product is called an *extract*.

4. Distillation—a process of evaporation followed by condensation. Volatile oils are collected in this way.

5. Special methods, used in purifying the active principles. The chemical and physical nature of the compound determines the method applied.

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